

#### ABSTRACT OF THE DISCLOSURE

Coating production systems and methods which include ultrasonic dispersion and active cooling. The system includes a mixing reservoir and an ultrasonic disperser for ultrasonically dispersing an additive with another coating component within the mixing reservoir. The system also includes a heat exchanger in communication with the mixing reservoir to receive a mixture of the additive and another coating component from the mixing reservoir. The mixture is cooled by thermal energy transfer from the mixture to the heat exchanger. The cooled mixture is returned to the mixing reservoir.